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An Analysis  
of the Senate Investigation*

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# THE MUNITIONS INDUSTRY

## AN ANALYSIS OF THE SENATE INVESTIGATION—SEPTEMBER 4-21, 1934

By WILLIAM T. STONE  
with the aid of the Research Staff of the Foreign Policy Association

*Our attention has been called to certain errors in fact and wording in the FOREIGN POLICY REPORT on The Munitions Industry of December 5, 1934. In the interest of accuracy and fairness this revised edition is published.*

THE Special Committee of the United States Senate investigating the munitions industry has been authorized to inquire into one of the many factors affecting public policy in relation to war and peace. What is the influence of the commercial motive in the manufacture and sale of war materials? Does this private industry create forces which endanger the expression of foreign policy or defy the national purpose? Are governments compelled to encourage the development of such a private industry for national defense, and if so are they in a position to enforce national policies which run counter to the interests of the industry?

Large-scale manufacture of war materials is limited to some ten industrial countries. Armament firms in these ten countries supply more than 93 per cent of the total world exports of arms and ammunition, while more than 50 per cent of the total exports come from three countries—Great Britain, the United States and France.<sup>1</sup> Thus, for many years a relatively small number of private corporations, operating for profit, have controlled the source of supply from which the majority of governments must meet their national defense needs. But these corporations occupy a dual rôle. On the one hand, they are private business enterprises, selling a commercial product in the world market; on the other, they are regarded by their own governments as an essential part of the national defense system. History reveals that in both rôles they have played an important part in the war system.

Before the World War several notorious scandals had revealed grave abuses arising from private manufacture and sale of war materials.<sup>2</sup> But none of these exposures had led to effective action by the governments concerned, and in August 1914 Europe was plunged into war. Since 1918, despite the effort to establish a new international system, the world has apparently made little

1. Cf. "International Traffic in Arms and Ammunition," *Foreign Policy Reports*, August 16, 1933. Between 1921 and 1931 inclusive, American exports of arms totalled \$97,015,000. Cf. League of Nations, *Statistical Year Book of the Trade in Arms and Ammunition, 1925-1933*. These figures include sporting arms but not military aircraft.

2. Cf. Lehmann-Russbuldt, "War for Profits" (New York, A. H. King, 1930).

progress toward achieving peace and security. During the past ten years the nations of the world have spent approximately 40 billion dollars for the upkeep of armies and navies maintained in the name of national defense. And today, with military expenditures far higher than in 1913,<sup>3</sup> Europe and the Far East lie under the shadow of war.

In probing the activities of the munitions industry at this time, the Senate Committee, headed by Senator Gerald P. Nye, is revealing forces which extend beyond armament makers and which may in part explain the failure of statesmanship to cope with the problem of war. In the course of its first public hearings, held in Washington from September 4 to 21, 1934, the Committee produced evidence confirming most of the abuses charged against the private armament industry in the past. Much of the evidence was merely sensational; some of the testimony was of doubtful value; but the evidence as a whole, although still incomplete, has revealed conditions which the American people and the world in general are entitled to know. This report, based on the records of the Senate Committee, presents a brief summary of the evidence brought out during the first stage of the investigation.<sup>4</sup>

3. Cf. "The Increasing Burden of Armaments," *Foreign Policy Reports*, October 24, 1934.

4. The Committee was appointed pursuant to Senate Resolution 206, adopted on April 12, 1934, authorizing an "Investigation of the activities of individuals, firms, associations and of corporations and all other agencies in the United States engaged in the manufacture, sale, distribution, import or export of arms, munitions, or other implements of war . . ." It was composed of the following seven Senators, appointed by the Vice President: Gerald P. Nye, North Dakota (chairman); Walter F. George, Georgia; Bennett Champ Clark, Missouri; Homer T. Bone, Washington; James P. Pope, Idaho; Arthur H. Vandenberg, Michigan; and W. Warren Barbour, New Jersey. The Committee appointed Stephen Raushenbush as secretary and chief investigator. Among other things, the Committee was instructed specifically:

- (a) To investigate the nature of organizations engaged in the manufacture or trade in arms; the methods used in promoting this trade, and the quantities of war materials imported or exported by the United States.
- (b) To investigate and report on the adequacy or inadequacy of existing legislation, and of the treaties to which the United States is a party, for the regulation and control of the traffic.
- (c) To review the findings of the War Policies Commission and to recommend such legislation as may be deemed desirable to carry out the purposes set forth in such findings.
- (d) To inquire into the desirability of creating a government monopoly in respect to the manufacture of armaments and munitions and to submit recommendations thereon.

For these purposes the Committee was authorized to hold hearings, to subpoena witnesses and to require the production of such books, papers and documents as it deems advisable. An appropriation of \$50,000 was voted to defray the initial cost of the investigation.

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During its first public hearings the Committee dealt with the activities of eight American corporations. Each of these corporations was engaged in the manufacture and sale of arms or ammunition. As industrial enterprises they may be grouped in three categories: The first comprises firms engaged primarily in the manufacture and sale of armaments or instruments designed exclusively for war purposes. Three of the corporations examined by the Committee fall in this category: the *Electric Boat Company* of New York and Groton, Connecticut, organized in 1900, which manufactures submarines for the United States and foreign governments; the *Driggs Ordnance and Engineering Company*, of New York, organized about 1888, which produces military and naval ordnance; the *American Armament Corporation*, organized in 1933, manufacturers of military and naval ordnance and dealers in all types of war material produced by other companies at home and abroad.

The second category includes firms which manufacture or sell materials capable of use in war and also for commercial or non-military purposes. The Committee examined two aviation groups—the *Curtiss-Wright Corporation* and the *United Aircraft and Transport Company*. Among the companies questioned were the *Curtiss-Wright Export Company*, a subsidiary of *Curtiss-Wright Corporation*, which is engaged in the manufacture and sale of airplanes and engines for commercial purposes, also military planes and engines for the United States Army and

Navy and foreign governments; and the *Pratt & Whitney Aircraft Company* and *United Aircraft Export Company*, subsidiaries of *United Aircraft and Transport Company*, also engaged in the manufacture of military and commercial airplane engines. The Committee also examined two chemical companies, *Federal Laboratories, Inc.*, of Pittsburgh, Pennsylvania, and *Lake Erie Chemical Company*, of Cleveland, Ohio, engaged in the manufacture of tear gas and equipment used by police departments and industrial concerns, also demolition bombs, fragmentation bombs, and other chemical war equipment used by armies and navies.

The third category includes corporations engaged in the manufacture and sale of a large number of industrial products, used exclusively for commercial purposes, as well as munitions and instruments of war. The *E.I. du Pont de Nemours Company*, of Wilmington, Delaware, is the largest manufacturer of military explosives in the United States, but is also a vast industrial organization with thirty-three subsidiaries engaged in many kinds of industrial activity which far overshadow its munitions business.

According to the evidence submitted to the Senate Committee, all of these industrial enterprises sell or seek to sell war materials to the United States government; all are actively engaged in the promotion of foreign sales in Europe, the Far East and South America; all are regarded by the War and Navy Department as important to the national defense.

## SUMMARY OF THE EVIDENCE

In 1921 a League of Nations Commission set forth the objections generally raised against the private manufacture of armaments.<sup>5</sup> It was said that armament firms have been active in fomenting war scares, have attempted to bribe government officials both at home and abroad, have disseminated false reports concerning military and naval programmes of various countries, have sought to influence public opinion through the control of newspapers, and have organized international armament rings and international armament trusts which have increased the price of armaments to governments.

Some of these charges, such as those founded on the existence of international "trusts," were based on conditions prevailing before the World War, and the evidence presented to the Senate Committee showed that they do not exist in the same form today. Cor-

respondence from the files of the eight American corporations, however, established the fact that many of the abuses listed by the League Commission are fairly common. The testimony also revealed other practices not enumerated in the League report. The evidence placed before the Senate Committee seemed to disclose the following conditions:

1. The national policy, as expressed in arms embargoes or international treaties, has been defied or circumvented by certain private armament interests.
2. Bribery or the payment of special commissions to persons of influence is frequently regarded as a necessary element in the promotion of armament sales.
3. Selling arms simultaneously to both sides in time of war and arming revolutionary and government factions in civil wars are common practices among armament firms.
4. Armament races between friendly countries have been stimulated by armament firms working in competition or in association with other companies at home and abroad.
5. Lobbies organized by armament firms have supported military and naval appropriations and opposed embargoes and other restrictions on arms.

<sup>5</sup> Cf. League of Nations, *Report of the Temporary Mixed Commission on Armaments, First Sub-Committee*, Document A.81.1921.C.321, Geneva, September 15, 1921. The Commission did not prefer these charges on the basis of its own information but merely reported the objections generally made. It also reported objections to the abolition of private manufacture.

6. Certain British, German and American arms companies are linked together under patent and sales agreements which provide for exchange of secret processes, division of profits and division of sales territories.
7. National defense policies and foreign policies of governments are influenced, if not hampered, by secret agreements between private arms interests in different countries.
8. Agencies of the United States government encourage the promotion of foreign armament sales. The United States War and Navy Departments release military designs to private armament firms and serve as sales promotion agents in foreign markets.
9. Under existing laws and regulations the United States government is powerless to control the shipment of arms to warring nations in violation of embargoes, or to prevent mis-labeling of shipments to foreign countries.

#### ATTITUDE TOWARD ARMS EMBARGOES

A major effort of statesmanship since the World War has been the development of machinery for the preservation of peace. Among other measures the League of Nations and various governments, including the United States, have considered the application of embargoes or imposed restrictions on arms and ammunition. On May 18, 1934 Congress adopted a Joint Resolution prohibiting the sale of arms and ammunition in the United States to Bolivia and Paraguay, and on May 28 such sale was forbidden in a Proclamation signed by President Roosevelt.<sup>6</sup>

The evidence indicated that some armament firms not only have opposed the adoption of measures restricting trade in arms but have evaded the national policy by circumventing the President's arms embargo measure applying to Bolivia and Paraguay. Several American arms companies made strenuous efforts to secure contracts for future delivery from Bolivia between May 18, when Congress passed the Joint Resolution, and May 28, when President Roosevelt's Proclamation was issued. It was shown that on May 25—three days before the Proclamation—the American Armament Corporation signed a contract for war materials valued at \$2,043,000, more than double the value of all earlier contracts between the Company and Bolivia. On May 30, two days after the Proclamation took effect, the Curtiss-Wright agent in South America wrote: "I am trying to get the Bolivian government to sign up for all future needs before any action is taken in the States." American Armament Corporation, which had the largest orders, took the position that

6. Cf. United States *Congressional Record*, May 18, 1934, p. 9342, Senate Joint Resolution 125; Proclamation by the President of the United States, May 28, 1934.

7. U. S. Senate, *Hearings Before the Special Committee Investigating the Munitions Industry* (hereinafter cited as *Hearings*), Part III, Exhibit 259.

"The sales were made and deposits made for certain material before the President's proclamation was made. That material has been sold to the Bolivian government and it is the Bolivian government's property and there is no law in this country that can prevent the Bolivian government from taking their own property to Bolivia."<sup>7</sup>

The State Department, according to testimony of Mr. Joseph C. Green, an officer of the Department, had been consistently opposed to shipment of war materials to Bolivia or Paraguay throughout the Chaco controversy, but until the passage of legislation by Congress it was without authority to prevent sales in the United States. After the President's Proclamation the State Department refused to exceed its authority by interpreting the resolution, and advised armament firms that they might engage counsel and test the resolution in the courts.

At the request of the Bolivian Minister in Washington, the State Department examined all unfilled contracts for arms and munitions, and on July 27 Secretary Hull published a list of exceptions allowing shipments to be made on uncompleted orders amounting to approximately \$621,576.<sup>8</sup> Shipments were forbidden on other uncompleted contracts amounting to nearly two million dollars.

A few days after the President's Proclamation, Mr. Lammot du Pont, in a letter of June 6, 1934, assured President Roosevelt of the willingness of his company to cooperate with the United States government. The difficulty of complying with an arms embargo by an American company having a joint sales agreement with a foreign company is illustrated by the following incident. On June 7, 1934 the du Pont office in Buenos Aires received an inquiry from its agent in Paraguay calling for quotations on 2,000 kilos of TNT, presumably for the government of Paraguay. The du Pont agent, N. E. Bates, was also serving as joint agent for military products of Imperial Chemical Industries, Ltd., under a sales agreement between the two companies. Under this agreement du Pont receives a commission on all sales made by I.C.I. in South America. It was shown that on receiving the inquiry, Bates cabled Imperial Chemical Industries advising them of the inquiry and suggesting that they quote on this business. On the same day Bates wrote I.C.I. explaining that du Pont

"... could not quote from this end owing to the embargo on munitions and military propellants decreed by President Roosevelt."

"In view of the fact that there is no similar embargo obtaining in England we suggested that you quote price to your office in Buenos Aires, who in

8. The Proclamation authorized the Secretary of State to make "exceptions and limitations." Cf. *State Department Press Release*, July 27, 1934.

turn would advise Ferreira, [the agent in Paraguay]."<sup>9</sup>

The Committee developed evidence that other American corporations operating in South America had taken steps in advance to circumvent an arms embargo. Early in 1933, when embargo resolutions were before the United States Congress, C. W. Webster, president of Curtiss-Wright Export Company instructed his agent in Chile to determine whether airplanes manufactured in the Curtiss-Wright factory in Santiago, Chile, could be shipped at all times to the South American countries. Webster frankly explained that

"... this is in view of a possible embargo on the part of the League of Nations and the United States government. In other words, would we be permitted to enter material into Chile for assembly and fabrication for such countries as Colombia, Ecuador, Peru, Bolivia, etc."<sup>10-11</sup>

The agent replied that there seemed to be no objection to the manufacture of planes in Chile for export to other South American countries.

Another attempt to avoid the consequences of an arms embargo was made in 1933 by interests associated with Curtiss-Wright in China. Intercontinental Aviation, Inc., controlled by the Curtiss-Wright group, signed a "dummy" contract for 96 military airplanes on March 29, 1933 to be used in the event of an embargo affecting China. A cable from Shanghai to Curtiss-Wright Export Company stated that the contract was subject to cancellation on fifteen days' notice, that it did not describe the planes or prices, and that no delivery date was mentioned. The cable continued:

"Please notify Department of State of this contract stating that Chinese Government aviation expert(s) to decide about on type(s) at a later date. No publicity of any kind must be given this matter as Minister of Finance exceedingly anxious (to) transaction not to be known anyone except Department of State official(s). Stop It must be understood that this is not purchase(s) agreement(s) and is a contract(s) (for) the purpose(s) (of) protecting Government against embargo (upon) this contract give us moral advantages (s) over competitor(s). Stop Writing fully."<sup>12</sup>

Contempt for the policies of the State Department regarding peaceful settlement of international disputes and hostility toward the efforts of disarmament conferences were revealed in the correspondence of several armament firms. L. Y. Spear, vice president of Electric Boat Company, wrote to Vickers in 1928 that "it is too bad the pernicious activities of our State Department have put the brake on armament orders

9. Hearings, Part V, Exhibit 477.

10-11. *Ibid.*, Part IV, Exhibit 264. Subsequently it was declared that in deference to the British government the I.C.I. did not place the order.

12. Hearings, Part III, Exhibit 390.

from Peru by forcing the resumption of formal diplomatic relations with Chile."<sup>13</sup> Sir Charles W. Craven of Vickers in a letter to Electric Boat written in January 1933 expressed concern lest "Geneva or any other troublesome organization" abolish the large submarines.<sup>14</sup>

In October 1924 Commander Aubry, South American agent for Electric Boat Company, proposed that he secure appointment as the official representative of Peru at the Conference on Trade in Arms and Ammunition, to be held at Geneva in 1925. Aubry wrote:

"I feel that I can do something good for Peru there, as well as for the cause for the submarines in South America. My flag will be 'no quotas in submarines' construction in South America and classify it as a 'defensive weapon.'"<sup>15</sup>

Although Aubry did not attend the conference, it appeared that the Electric Boat Company had no objection to his appointment except the expenses, which they thought rather high.<sup>16</sup>

#### RELATIONS WITH GERMANY

The evidence showed further that the national policy of the United States, as expressed in treaties, has been disregarded by armament firms. Article 170 of the Versailles Treaty (and the separate Treaty of Peace between the United States and Germany) strictly prohibits the importation and exportation of "arms, munitions, and war material of every kind" by Germany. Presumably the former Allied and Associated Powers have been attempting to enforce these disarmament provisions and to compel observance by their own nationals.

The files of the American corporations examined by the Committee revealed that the peace treaties have been disregarded not only by the German arms industry but by private armament firms in France, Great Britain and the United States. The evidence would suggest that private business interests which profit from sale of war material may be more powerful than governments. The British Foreign Office, the French Ministry of Foreign Affairs and the American State Department were shown to have failed in any efforts they may have made to prevent nullification of the Versailles Treaty by armament interests within their borders.

Discounting the questionable testimony of arms salesmen based on hearsay and rumor, there remains an imposing array of evidence demonstrating the active participation of

13. *Ibid.*, Part I, Exhibit 127.

14. *Ibid.*, Exhibit 23.

15. *Ibid.*, Exhibit 65.

16. *Ibid.*, p. 113.

European and American munitions firms in the rearmament of Germany.

It was shown that the Curtiss-Wright and United Aircraft groups increased their sales of airplanes and engines enormously during 1933 and 1934. United Aircraft sales to Germany increased from \$2,000 in 1931 to \$6,000 in 1932, \$272,000 in 1933, and \$1,445,000 in the first eight months of 1934. During 1933 the shipments included 29 engines; while from January 1 to August 31, 1934, United sales included 176 engines, two Boeing transports, and six planes described as mail planes which, it was testified, were similar to planes sold by the Company to the United States Navy as two-seater fighters.<sup>17</sup>

On March 29, 1933 Pratt & Whitney, the United subsidiary, signed an agreement with Bavarian Motor Works granting this German company the right to build air cooled aircraft engines which could be used either for commercial or military purposes. Under this agreement, as originally signed, Bavarian Motor Works was to pay Pratt & Whitney a royalty of \$200 for each engine manufactured, and to report the number of engines manufactured on Pratt & Whitney designs. This agreement was later modified at the request of the German company in order to avoid the necessity for royalty reports by Bavarian Motor Works. Under the modified agreement Bavarian Motor Works was to pay a flat royalty of \$50,000 a year regardless of the number of engines manufactured in its Munich plant.<sup>18</sup>

Despite the Versailles Treaty the du Pont Company signed a contract on February 1, 1933 with one D. F. Giera, an alleged international spy, appointing Giera its special agent to "negotiate for the sale of military propellants and military explosives" in Germany and Holland. The agreement was cancelled by du Pont on February 2, 1933 and a new contract signed on February 15 with modifications designed to provide against violation of the Versailles Treaty and to prevent the sale of explosives without "the approval or consent" of the United States government.<sup>19</sup> The second contract, in turn, was later cancelled and Giera received \$25,000 to compensate him for alleged expenses.<sup>20</sup>

Reports from the European sales office of du Pont and other American arms corporations in 1933 and 1934 described a tremendous increase in the contraband of arms and ammunition into Germany.<sup>21</sup> William N. Taylor, head of the du Pont Paris office, reported a growing illegal traffic through Holland and widespread traffic in powder and

small arms within Germany. While the legitimate export of powder in Europe was not more than 300 tons in 1932, Taylor informed du Pont that the illegal trade is supposed to be "over 1,000 tons, much of which is made in Germany." Taylor listed four German firms which were alleged to be active in the illicit arms trade: James Magus & Company, Beno Spiriro, Carlowitz and Kunst & Albers, all of Hamburg.<sup>22</sup>

Before the World War du Pont, Nobel of England and Kolin-Rottweiler of Germany were closely linked through patent and process agreements covering all kinds of military explosives. These ties, through which the world's largest powder and explosives companies exchanged secret processes, were broken by the war. The du Pont-Nobel relations were again established in 1919, and in 1926 du Pont entered into a new license agreement with Kolin-Rottweiler and Dynamite Aktien Gesellschaft, formerly the Alfred Nobel Company of Germany. Under the 1926 agreement du Pont and the two German companies agreed to exchange patents and secret inventions covering all kinds of explosives for industrial purposes. The products covered, however, included black powder, disruptive explosives, smokeless propellants for sporting purposes, detonators, safety fuses, powder fuses, electric ignitors, "and generally all devices for initial detonation or ignition."<sup>23</sup> Officials of the du Pont Company testified that black powder, smokeless propellants and certain other "industrial" explosives could be used for military purposes.

A similar arrangement was concluded between Imperial Chemical Industries, successors to Nobel's in England, and the two German companies.<sup>24</sup>

According to correspondence placed in the record, Imperial Chemical Industries apparently contemplated a military sales agreement with Germany as soon as the Versailles Treaty limitations are removed. In a letter of March 6, 1933 Sir Harry McGowan, chairman of I.C.I., informed the du Pont Company that "the understanding is clearly that as and when the Treaty of Versailles is modified the whole position as at present covered by the general military agreement should be reviewed." Sir Harry added

"Although our friends have been out of the export military business for many years, they probably have manufactured for local requirements and I think we may assume that they have not been idle in their research. It is definitely established that they have not been so in military detonators. I feel sure that when freedom to manu-

17. *Ibid.*, Part VI, p. 1518.

18. *Ibid.*, Exhibits 593, 595.

19. *Ibid.*, Exhibits 518-521.

20. *Ibid.*, Exhibits 523-524.

21. *Ibid.*, Exhibit 508.

22. *Ibid.*, Exhibits 507, 509.

23. *Ibid.*, Part V, Exhibit 512.

24. *Ibid.*

fature is granted for home use and possibly for export, they will expect to take a prominent position in the business and one which will be in keeping with our arrangement with them on blasting explosives, and we have, in fact, kept in mind this possibility."<sup>25-26</sup>

#### SPECIAL COMMISSIONS TO PERSONS OF INFLUENCE

Bribery, although deplored by armament company officials, is apparently regarded by arms salesmen as an essential element in the sale of war material abroad. The payment of special "commissions" to "persons of influence" and government officials would appear to be the customary practice, if not the public policy, of most armament firms. The prevalence of this practice was attested by several hundred letters and reports from arms salesmen in all parts of the world. Records of the eight armament corporations examined by the Committee revealed that seven of these firms have offered "commissions" or other financial inducements to various persons who appear to have been helpful in the promotion of foreign sales. The only firm whose correspondence, as revealed to the Committee, did not show the usual unguarded references to this practice was the United Aircraft Export Company. Mr. Love, president of the Company, denied that commissions were necessary to secure foreign orders. A letter from the Company's agent in Colombia, however, reported that certain pilots employed by the Colombia government had told him that Mr. Love had offered them "protection" for recommending United Aircraft planes.<sup>27</sup> The agent in Bolivia reported that he had been instructed to refrain whenever possible from referring to "commissions" in his "official correspondence," adding that in his opinion "no one could make sales in South America on a 2½ per cent or 3 per cent commission basis."<sup>28</sup>

Other armament company officials frankly admitted the extent of this practice. L. Y. Spear, vice president of Electric Boat Company, in a letter to Vickers, Ltd., said "the real foundation of all South American business is graft."<sup>29</sup> The Soley Armament Company, Ltd., a British firm dealing in second-hand war materials, informed A. J. Miranda of the American Armament Corporation that "we fully understand that armament deals are not usually done without officials getting 'greased.'"

The evidence showed that the E. I. du Pont de Nemours Company had paid special commissions to unnamed officials in the Chinese military administration in 1932 in order to secure a substantial contract for sale of military explosives.<sup>30</sup> Mr. Bates, South American agent of the du Pont Company, testified

that in 1931 the services of the son of the then President of Argentina had been engaged to explain the "highly technical details" of a powder factory proposal, and that the compensation seemed "slightly high."<sup>31</sup> The du Pont Company subsequently denied that it paid any fee to the official concerned.<sup>31a</sup>

Correspondence of Curtiss-Wright Export Company contained references to special commissions or implied a willingness on the part of the Company's agents to purchase influence in Bolivia, Peru, Chile, Salvador, Argentina, Mexico, China and other countries.<sup>32</sup> Curtiss-Wright officials in Bolivia reported that the Controller General of Bolivia, Lopez, was understood to be a "silent partner" in the firm of Webster & Ashton, agents for Curtiss and other American armament firms.<sup>33</sup>

It was shown that sales of military equipment by Federal Laboratories, Inc., to the Cuban government were accompanied by commissions to a Lieutenant Demestre, the government purchasing agent under Machado.<sup>34</sup> American Armament Corporation was shown to have appointed agents who claimed influence in military and government circles in Colombia, Peru, Ecuador, Bolivia, Brazil, Cuba and other countries.<sup>35</sup> Officers of the Lake Erie Chemical Company testified that commissions had been paid to Lieutenant Commander Strong, U.S.N., an officer "loaned" to the Colombian government in 1932 to advise on national defense plans.<sup>36</sup>

Electric Boat Company in 1929 offered a commission of \$20,000 to Juan Leguia, son of the late President Leguia of Peru, on each of two submarines to be built for the Peruvian Navy.<sup>37</sup> Over a period of eleven years, from 1919 to 1930, the Electric Boat Company paid commissions totaling \$766,000 to Sir Basil Zaharoff, whose munitions dealings in Europe cover half a century. It was shown that Sir Basil's services to the Electric Boat Company were to "do the needful" in holding a Spanish contract against competition from German and Italian submarine companies.<sup>38</sup>

In publishing correspondence relating to bribery, the Senate Munitions Committee disclaimed any intention of casting reflections on the integrity of officials of foreign governments, who may or may not actually have received the "commissions" paid at the request of arms salesmen. These conditions, the Committee demonstrated, arise from a

31. *Ibid.*, p. 1173-93.

31a. Subsequently, after investigation, a commission of the Argentine government declared that there was "no indication of any irregularity in the conduct of this affair." *La Nacion* (Buenos Aires), December 22, 1934.

32. *Ibid.*, Part IV, Bolivia (Exhibits 310-312); Chile (Exhibit 317) ; Salvador (Exhibits 308, 309); Argentina (Exhibits 318-320); Mexico (Exhibit 322); China (Exhibit 297).

33. *Ibid.*, Exhibits 300-301.

34. *Ibid.*, Part VII, Exhibits 602-602.

35. *Ibid.*, Part III, Exhibits 237, 238, 239, *et seq.*

36. *Ibid.*, Part VIII.

37. *Ibid.*, Part I, Exhibit 41.

38. *Ibid.*, Exhibits 31, 32, 36.

situation in which uncontrolled private corporations, operating for profit in a highly competitive system, are bidding for lucrative contracts offered by smaller countries which lack the facilities to provide for their own national defense requirements. Much of the correspondence relating to bribery revealed a cynical contempt for governments.

#### ARMS SALES TO SOUTH AMERICA

Supplying arms and ammunition simultaneously to both sides in international conflicts, according to the evidence, is generally regarded as a legitimate, if somewhat dangerous, form of business enterprise. Most of the American corporations examined by the Committee were shown to have sought contracts from the four South American countries engaged in armed conflict during the past few years. Neither Bolivia and Paraguay nor Colombia and Peru manufacture war materials essential to the conduct of armed hostilities. During the Leticia controversy the Colombian Consulate in New York (and presumably also the Peruvian Consulate) was "deluged with proposals for all kinds of war material, mostly second-hand, obsolete material offered by brokers."<sup>39</sup> During 1933 and 1934, according to a representative of United Aircraft, "every important airplane company in the world had redoubled its sales efforts in South America."<sup>40</sup> The military sales division of the du Pont Company, operating under a military sales agreement with Imperial Chemicals, Ltd., of England, maintains joint sales agencies in ten South American countries, including Bolivia, Paraguay, Colombia and Peru.<sup>41</sup> Skoda, Vickers and other European firms were shown to be in competition with American firms in South America.

The du Pont Company, according to reports from its military sales division, was actively soliciting business from both Bolivia and Paraguay during the Chaco war. During a visit to Washington on August 5, 1932 du Pont's principal South American agent, N. E. Bates, called on both the Bolivian and Paraguayan Legations to submit prices on military propellants and explosives. During the Leticia controversy du Pont sold 88,000 pounds of TNT to the Peruvian government and also at the same time sold 340,000 pounds of TNT to the Atlas Powder Company for shipment to the Colombian government.<sup>42</sup>

The Curtiss-Wright airplane group, according to the evidence, conducted one of the most aggressive military sales campaigns throughout South America before and dur-

ing the period of hostilities. Agents of the Company were shown to have been in negotiation with all four belligerents. In 1933 C. W. Webster, president of the Curtiss-Wright Export Company, toured the warring South American countries in the interest of military sales. His efforts apparently produced the desired results.

In Bolivia Curtiss-Wright captured a substantial share of the government's aviation orders, successfully meeting competition from Vickers, Junkers and other foreign companies. From January 1932 to April 1934 Curtiss-Wright sold twenty-four military planes for service in the Chaco. The Curtiss Hawk and Osprey planes were serviced by Curtiss-Wright technicians supplied by the Company.<sup>43</sup> Simultaneously on the other front Curtiss-Wright agents were endeavoring (with less success) to sell similar equipment to Paraguay and to dispose of a Falcon and Hawk plane held by the Company in Chile.

The peace efforts of neighboring countries occasionally created obstacles which were overcome with difficulty. A report in February 1933 from the Curtiss-Wright agent in Chile declared:

"Senor Cruchaga, the Foreign Minister . . . presided recently at an anti-war meeting held in Mendoza with the Argentine authorities, the object being to try and induce Bolivia to cease hostilities and to go to arbitration. It was also agreed that neither Chile nor the Argentine could lend any assistance to either country with arms or munitions. So, in a nutshell, we can see why it has been so difficult to dispose of the Falcon and Hawk to Bolivia or Paraguay."<sup>44</sup>

The Leticia controversy offered similar commercial opportunities. In May 1933 Curtiss-Wright Export Company reported that "during the past two weeks we closed orders for nine Trainers, six Hawks, and six Falcons for Colombia . . ."<sup>45</sup> During 1933 the company sold 29 planes to the Colombian government. In November of the same year, during a truce in the Leticia conflict, Owen Shannon of the Export Company reported from Peru that "my last conversation with the inspector general and the Minister of Marine was very promising, and they are considering about 10 Falcons and 5 Hawks."<sup>46</sup> By September 1934 the Company had sold 17 planes at a cost of \$553,752.

For a time Curtiss-Wright operated an airplane factory in Chile, but production was discontinued when the Chilean government was unable to finance airplane construction.<sup>47</sup>

39. *Ibid.*, Part II, Exhibit 214.

40. *Ibid.*, Part VI, Exhibit 544.

41. *Ibid.*, Part V, Exhibit 483.

42. *Ibid.*, p. 1144.

43. *Ibid.*, Part IV, Exhibits 298-300.

44. *Ibid.*, Exhibit 344.

45. *Ibid.*, Exhibit 302.

46. *Ibid.*, Exhibit 304.

47. *Ibid.*, Exhibit 345.

In both war areas the American Company encountered strong competition from European firms. C. W. Webster reported in March 1933 that the French had "closed a contract with the Peruvian Government for 23 or 35 million francs credit which is to be spent exclusively for French equipment—complete airplanes, armament, radio, photographic, and other material."<sup>48</sup>

In 1930 United Aircraft, competitors of Curtiss-Wright, sold Peru 26 military airplanes at a price of \$745,000. Being unable to collect, following the financial collapse in Peru, the Company entered into an agreement with the Peruvian Guano Company, a government controlled corporation. The aviation company agreed to take at least 12,000 tons of guano a year for five years. United Aircraft was to retain half of the fixed price—25 per cent to be applied against its outstanding debt from Peru and 25 per cent to be applied to the purchase of aircraft through United. The contract was made at a time when Peruvian bonds were in default. The bond contracts, which were issued in 1927 and 1929, provided that the Peruvian government would not issue or guarantee any loan or obligation secured by lien on specific revenues, or without the consent of the fiscal agents on specific assets, unless all bonds were given a lien on such revenues or assets. The National City Bank of New York, one of the fiscal agents, was shown to have close relations with United Aircraft.<sup>49</sup> The United Aircraft, although less active in South America than Curtiss-Wright, was competing for business in Colombia and Bolivia.<sup>50</sup>

American Armament Corporation, another concern active in South America, was organized in December 1933 by A. J. Miranda, formerly associated with the Driggs Company. During a flying trip to South America Miranda had become convinced that there were exceptional business opportunities in the sale of munitions to the warring South American countries. He severed connections with Driggs and secured a plant capable of manufacturing armaments through an arrangement with the Elevator Supplies Company of New York and Hoboken, New Jersey. Within seven months the newly organized American Armament Corporation, launched without the investment of any capital by its promoters, had secured armament contracts from Bolivia, Dominican Republic, and other countries valued at \$2,902,000.<sup>51</sup> During this period the Company showed net profits of \$161,000.<sup>52</sup>

48. *Ibid.*, Exhibit 364.

49. *Ibid.*, Part VI, Exhibit 589.

50. *Ibid.*, Exhibits 542-545.

51. *Ibid.*, Part II, Exhibit 267.

52. *Ibid.*, Exhibit 264.

Armament firms have been active in internal conflicts and civil wars as well as international disputes. Before the overthrow of President Machado of Cuba on August 13, 1933 Federal Laboratories of Pittsburgh had been selling tear gas and other military equipment to the Cuban government.<sup>53</sup> When a revolution in Cuba appeared imminent, J. Y. Young, president of Federal Laboratories, established contact with Carlos Mendieta and other Cuban opposition leaders in the United States to discuss a "big program" for procurement of war materials.<sup>54</sup> On August 18—six days after Machado's flight from Cuba—Young wrote Mendieta expressing "our congratulations to you and your associates on the marvellous outcome in Cuba . . ." After the overthrow of the de Cespedes régime on September 4, 1933 in favor of a government led by Dr. Grau San Martin, Federal Laboratories, despite its professions of friendship for Mendieta, promptly entered into negotiations to sell military equipment to both factions. A memorandum in the Company's files showed that Young offered his Cuban agent, Texidor, "a commission of 10 per cent on all business done with the Menocal-Mendieta group and a commission of 15 per cent to 20 per cent . . . on all business done with the Grau group."<sup>55</sup> It was demonstrated that Federal Laboratories handled orders for the Cuban government and the opposition at the same time.<sup>56</sup>

Immediately after the overthrow of Grau and the organization of the Mendieta government on February 10, Young was appointed "a consultant to direct the planning, organization, training and equipping of the national police force" at a retainer of \$10,000.<sup>57</sup> Federal Laboratories sales to Cuba increased sharply during the next six months.

It was also shown that Curtiss-Wright had dealings with both the Brazilian government and the rebel faction during the 1932 revolution in Brazil. Ten planes were flown from the Curtiss factory in Chile, presumably to Paraguay; eventually, however, they reached the Sao Paulo revolutionists in Brazil.<sup>58</sup>

#### ARMS COMPETITION

Although the Committee produced no tangible evidence that American armament firms have succeeded in fomenting war scares, it revealed several instances of competition apparently stimulated by the activities of armament companies.

53. *Ibid.*, Part VII, Exhibits 602-604.

54. *Ibid.*, Exhibit 616. The program was not carried out before the overthrow of Machado.

55. *Ibid.*, Exhibit 618.

56. *Ibid.*, Exhibit 624.

57. *Ibid.*, Part VII, Exhibit 631.

58. *Ibid.*, Part IV, Exhibit 304.

In 1920 the Washington representative of Electric Boat Company reported to his office that Admiral Niblack, chief of Naval Intelligence, United States Navy, had informed him that "the whole balance of power has been destroyed by Chile getting six submarines and two warships from England, and that it has caused a good deal of uneasiness on the part of the Argentine, while Peru is absolutely helpless."<sup>59</sup>

The history of this transaction was told in correspondence which showed that during the World War the British government had taken over a Chilean warship then under construction in Great Britain, and to compensate Chile had ordered ten submarines to be built in the United States by the Electric Boat Company and Bethlehem Shipbuilding Corporation. Six of these ships were turned over to Chile at the close of the war.<sup>60</sup> Having helped to arm Chile, thus upsetting the balance of power, Electric Boat Company began a vigorous sales campaign in Peru. Negotiations were opened with one Lieutenant Commander Luis Aubry of the Peruvian Navy, who was paid \$4,000 for a booklet circulated in Peru and throughout Latin America describing the superiority of Electric Boat submarines.<sup>61</sup> Sometime later Aubry resigned from the Peruvian Navy to become South American agent for Electric Boat.<sup>62</sup>

The methods employed by the Company in promoting its business in Peru were described in a letter written in 1924 by L. Y. Spear, vice president of Electric Boat, to Sir Trevor Dawson, chairman of Vickers:

"Our present position in Peru, which is a very special and strong one, is the result of many years of effort. In fact, it dates back to the first presidency of the present President, Señor Leguia, who then entered into a contract with us for submarines which was dishonored by his successor. Commander Aubry, who is a Peruvian naval officer, was intimately connected with the restoration of President Leguia to power in Peru and prior to his retirement from active service was entrusted by President Leguia with many important missions, among which was the arrangement with the United States Government under which the American Naval Mission was sent to Peru. Under these circumstances, he is naturally on the best of terms not only with the administration but with the American Naval Mission..."

"In December, the President called an extraordinary session of Congress for the purpose of considering the adoption of a naval program including six submarines of our design. The cost of the whole program would be in the neighborhood of \$25,000,000, and the only thing standing in the way of its immediate adoption and orders is the question of finances which is a very important one. They have been discussing the question of levying special taxes in connection with the

naval program and floating a loan with such taxes as security. We fear that their financial ability would prove inadequate to the handling of this whole program at once and consequently we are trying to arrange so that the program will be distributed over a number of years and will begin with two submarines. It is of course quite on the cards that the builders of the submarines will be called upon for active assistance in financing the construction."<sup>63</sup>

In the end, after protracted negotiations which included the floating of a Peruvian loan in the United States, Peru ordered two submarines in 1924 at a cost of \$2,473,000, and two more at a cost of \$2,500,000 in 1926. On both occasions Electric Boat Company officials cooperated closely with the Peruvian government in negotiations for loans in the American market.

In March 1927, at a time when relations between Chile and Peru were strained over the Tacna-Arica controversy, the Electric Boat Company received an inquiry from Chile asking whether it could furnish two 900-ton submarines for immediate delivery.<sup>64</sup> As it was still building two submarines for Peru, the Company promptly advised its agent in Chile that the best opportunity for quick delivery was through the firm of Vickers in England, which operated under a license agreement with Electric Boat. Spear wrote Vickers on May 3, 1927:

"... for reasons with which you are already familiar ... it will be best, for the time being at least, to continue to talk of nothing but British construction ... if you should decide to submit a tender now ... you will of course have to reserve our 5 per cent royalty as well as the 5 per cent commission referred to in the cable ..."<sup>65</sup>

Documents in the files of the Electric Boat Company failed to show whether Chile's alarm was due to the naval program in Peru or the anticipated outbreak of immediate hostilities with its neighbor. Electric Boat and its British associate Vickers, however, were the beneficiaries of the resulting competition.

During the same period Electric Boat Company was also engaged in a campaign to sell submarines to Brazil and Argentina. In 1923 Commander Aubry visited Rio de Janeiro and Buenos Aires in the interest of naval contracts. In Rio he was told that the Minister of Marine of Brazil was "very confident" that the government would be able to sign a contract for five submarines sometime during the next year.<sup>66</sup> In Argentina Aubry found the government loath to embark on any naval program unless compelled to do so by the Brazilian building. The situation was delicate, but undoubtedly advantageous to an arms agent with full knowl-

59. *Ibid.*, Part I, Exhibit 56.

60. *Ibid.*, Part I, p. 97.

61. *Ibid.*, Exhibits 58-59.

62. Aubry's compensation, including salary, commissions and expenses from 1919 to 1934, totaled \$362,201. *Ibid.*, Exhibit 41.

63. *Ibid.*, Exhibit 89.

64. *Ibid.*, Exhibit 68.

65. *Ibid.*

66. *Ibid.*, Exhibit 114.

edge of the contemplated naval programs of both governments. Writing in 1924 Aubry told his employers that "in this business we will have to be tactful and a little diplomatic," as the negotiations in Brazil and Argentina were coming to a head at the same time.<sup>67</sup>

Negotiations with Brazil and Argentina continued over a period of years, with a number of armament companies, including American, British, French and Italian firms, competing. Whether or not as a result of this activity, Brazil finally adopted a huge naval program in 1933 calling for the construction of "practically a whole navy, including all kinds of ships."<sup>68</sup> This program was passed by the Brazilian Congress at a time when virtually all outstanding bonds of the Brazilian government were in default. New York Shipbuilding Corporation of Camden, New Jersey, Vickers of England, and other companies were vitally interested in this program. Electric Boat allowed Vickers to bid on the submarine business, as it contemplated capacity orders from the United States Navy and doubted the ability of Brazil to finance the program.<sup>69</sup>

Other cases of arms competition were brought out in connection with military sales to China. American and foreign airplane companies have been especially active in building up Chinese military aviation since 1930.<sup>70</sup> Curtiss-Wright sold 54 planes to China from January 1932 to April 1934. From January 1, 1934 to August 31, 1934 United Aircraft sold 41 military planes and other aircraft equipment to China at a total cost of \$1,170,041.05. In addition to promoting military sales in China, American aviation companies, including the Curtiss-Wright and United Aircraft groups, have recruited experienced military pilots to instruct Chinese aviators at training schools established by the Nanking government at Hangchow and by the Canton government in the South.<sup>71</sup>

As a result of these armament sales to China, Japanese newspapers launched an attack on American policy in China, while the Japanese War and Navy Departments demanded increased appropriations for expansion of the military air forces to meet the menace of foreign building.<sup>72</sup> At the same time, however, American firms were exporting to Japan raw materials used in manufacture of munitions and military equipment. The sale of scrap iron and steel to Japan, according to Department of Commerce figures,

jumped from 208,260 tons in 1929 to 547,539 tons in 1933—an increase of 163 per cent. From January 1 to July 31, 1934 exports of scrap iron and steel amounted to 508,585 tons. In 1933 the sales to Japan represented 70.8 per cent of the total scrap iron and steel exports of the United States.<sup>74</sup> The export of cotton linters, used in the manufacture of munitions as well as commercial products, increased from 1,100 pounds in 1929 to 9,290,369 pounds in 1932 and 6,849,805 pounds in 1933.

The evidence, while not conclusive, indicated that the activities of private armament companies have in some cases influenced the policies of governments and encouraged or stimulated competition in armaments.

#### INTERNATIONAL AGREEMENTS

While the evidence placed before the Senate Committee did not reveal the existence of an international "trust" in the strict sense of the term, it showed that some of the largest American, British and German armament firms are closely associated in the sale of war materials or explosives throughout the world, that they divide profits, protect each other's interests, and act in concert to offset independent outside competition. Furthermore, the evidence showed that firms in all the principal arms producing countries operate under license agreements providing for exchange of patents and secret processes.

The Senate Committee placed in the record international agreements dealing not only with war materials but also with industrial products which members of the Committee believed were closely related to the manufacture of munitions. The principal agreements listed by the Committee follow:

##### I. ELECTRIC BOAT COMPANY AND VICKERS, LTD.

1. License agreement of December 12, 1902, modified by agreement of October 21, 1913, providing for exchange of patents and secret processes and division of profits, as follows:<sup>75</sup>

On submarines constructed for continental countries in Vickers yards in Great Britain: 60 per cent to Vickers and 40 per cent to Electric Boat Company.

On submarines constructed in other British yards approved by Electric Boat Company: 50 per cent to Vickers and 50 per cent to Electric Boat Company, after deducting profits to the building firm.

On submarines built in continental Europe: 50 per cent to Vickers and 50 per cent to Electric Boat Company.

2. License and sales agreement of March 4, 1924, providing for exchange of patents, division of royalties and sales territories.<sup>76</sup>

(a) Territory reserved exclusively for Vickers: British Commonwealth of Nations.

74. *Hearings*, Part VIII.

75. *Ibid.*, Part I, Exhibits 11, 11A.

76. *Ibid.*, Exhibit 12.

67. *Ibid.*, Exhibit 69.

68. *Ibid.*, p. 179; cf. also Exhibits 105-109.

69. *Ibid.*, p. 179.

70. *Ibid.*, Part VI, Exhibit 551.

71. *Ibid.*, Exhibits 553, 556, 557.

72. Cf. W. T. Stone and David H. Popper, "The Increasing Burden of Armaments," *Foreign Policy Reports*, October 24, 1934; also *Transpacific*, Tokyo, July 5, 1934.

(b) Territory reserved exclusively for Electric Boat Company: United States, colonies and dependencies and Republic of Cuba.

(c) Common territory in which both parties shall be free to act: all countries of the world except Spain, Japan, France, Italy, Belgium, Holland, Norway, Finland, Brazil, Argentina and Peru, where Vickers agrees not to seek business except in accordance with special agreement with Electric Boat Company.

In territory (a) Vickers agrees to pay Electric Boat Company 3 per cent of gross contract price on submarines built to Electric Boat Company designs.

In territory (b) Electric Boat Company to pay 3 per cent on submarines built to Vickers designs, but no royalty on its own designs.

In territory (c) each company to pay other 4 1/4 per cent on submarines built in its own domestic plants.

The two companies undertake to keep each other fully informed as to all negotiations, inquiries, orders and arrangements with regard to manufacture and sales in territories (a) and (c).

Agreement to continue in force until December 31, 1937 and automatically thereafter until either party shall terminate on one year's notice.

3. **Construction agreement of March 4, 1934,** under which each company agrees to accept and execute orders for construction of submarines for the other.<sup>77</sup>

## II ELECTRIC BOAT COMPANY AND WHITEHEAD AND COMPANY, LTD., FIUME, HUNGARY.

1. **License agreement of June 11, 1912,** granting Whitehead exclusive right to build submarines on designs of the American company in Austria-Hungary for a period of twenty years and to sell exclusively in Austria-Hungary, Greece, Turkey, Rumania and Bulgaria.<sup>78</sup>

Agreement terminated in 1913.

## III. ELECTRIC BOAT COMPANY AND LA SOCIEDAD ESPANOLA DE CONSTRUCCION NAVAL.

1. **License agreement of June 18, 1912,** granting the Spanish company exclusive right to build submarines on designs of the American company in Spain for a period of ten years.

The Spanish company to pay to the American company 5 per cent of the selling price of each boat plus 50 per cent of the profits on each boat.<sup>79</sup>

Modified in 1921 and replaced by new agreement in 1922, under which Spanish company pays 3 1/2 per cent plus 5 per cent to Electric Boat Company.

## IV. ELECTRIC BOAT COMPANY AND COCKERILL, BELGIUM; DE SCHELDE, HOLLAND; CANTIERI NAVALI DELLA SPEZIA, ITALY; MITSUBISHI, JAPAN; ETC.

License agreements covering sale of patents and processes.

77. *Ibid.*, Exhibit 12.

78. *Ibid.*, Exhibit 13.

79. *Ibid.*, Exhibit 304.

V. VICKERS, LTD., AND VICKERS SUBSIDIARIES OR LICENSEES. Mitsubishi, Japan; Vickers, Holland; de Schelde, Holland; Vickers, Australia; La Sociedad Espanola Construccion Naval, Spain; etc.<sup>79a</sup>

## VI. DU PONT AND IMPERIAL CHEMICAL INDUSTRIES, LTD.

In 1897 du Pont entered an agreement with the Nobel group of factories in Europe, which included predecessors of Imperial Chemical Industries. Agreements providing for exchange of processes, division of territories and price fixing were held to violate anti-trust laws and were later cancelled. In 1907 new agreements providing for exchange of processes and division of sales territory were entered into. After the World War patents and process agreements, including military explosives, were signed in 1920. On July 1, 1928 du Pont and I.C.I. signed a military sales agreement providing for sale of military explosives of both companies in Europe and Turkey through du Pont Paris office and I.C.I. Vienna office. The following agreements are still in effect:

- License agreement of January 1, 1926** between du Pont and Nobel Industries, Ltd. (now I.C.I.), covering exchange of patents and processes on explosives for industrial purposes, smokeless propellants for sporting purposes, detonators, powder fuses, etc., and granting exclusive and non-exclusive licenses for manufacture and sale.<sup>80</sup>
- Military sales agreement of October 10, 1932** between du Pont and I.C.I., replacing 1928 agreement and providing for sale of military explosives of both companies in Europe, Asia and South America. Du Pont sales agents represent both companies in Europe and South America. Imperial Chemical Industries sales agents represent both companies in Asia, Turkey and Persia.<sup>81</sup>
- License agreement of 1933** between du Pont, Imperial Chemical Industries and Canadian Industries, Ltd. (jointly owned by du Pont and I.C.I.), covering exchange of patents and processes.<sup>82</sup>

## VII. DU PONT AND DYNAMITE AKTIEN GESELLSCHAFT AND KOLN-ROTTWELLER, GERMANY.

- License agreement covering exchange of patents and secret processes on disruptive explosives of all kinds for "industrial purposes," smokeless propellants for "sporting purposes," detonators, powder fuses, etc., in effect as "gentlemen's agreement."<sup>83</sup>

## VIII. DU PONT AND MITSUI, JAPAN.

**Agreement of July 26, 1932,** covering sale of secret "contact conversion process" for

79a. The du Pont Company also has direct investment in sixteen foreign corporations engaged in the manufacture of chemicals or industrial explosives in Mexico, Chile, Italy, Canada, Great Britain, France and Germany. *Ibid.*, Part V, Exhibit 45. The Company asserted that none of these companies manufactured military explosives.

80. *Ibid.*, Exhibit 473.

81. *Ibid.*, Exhibit 465.

82. *Ibid.*, Exhibit 475.

83. *Ibid.*, Exhibit 512.

manufacture of a hydrogen-nitrogen mixture by du Pont to Mitsui. Mitsui to pay \$300,000 for first unit, or \$900,000 for two or more additional units used in manufacture of hydrogen.<sup>84</sup>

#### IX. IMPERIAL CHEMICAL INDUSTRIES, LTD., AND FOREIGN SUBSIDIARIES.

Foreign investments in explosives and ammunition companies in Austria, Belgium, France, Czechoslovakia, Germany, Rumania, Spain, Hungary, Africa, Argentina, Australia, Canada and Chile. Sales agreements with explosives and chemical companies in Belgium, France, Germany, Italy, Norway, Africa and Switzerland.<sup>85</sup>

The Senate Committee demonstrated that under these agreements some of the participating firms have sought to prevent outside competition, to protect each other's bids on contracts with governments, and to create monopolies in various parts of the world. Secret designs and processes are freely sold to foreign companies for use by foreign governments.

For many years Electric Boat Company and Vickers appear to have had a virtual monopoly in the construction of submarines for the Spanish government. Through the intervention of Sir Basil Zaharoff, Electric Boat was able to hold its contract with the Spanish company, *Sociedad Espanola*, against Italian and German competition, despite the fact that the American firm had not supplied the latest submarine designs and improvements.<sup>86</sup> When Spanish naval authorities discovered this in 1927, Sir Basil reported that "our Spanish companies are very much disturbed because they fear their government may suspect their good faith, and they tell me that it has always been an exceedingly difficult and delicate problem to create a monopoly for the Electric Boat Company products . . ."<sup>87</sup>

Private manufacture of arms has been justified on the ground that a strong domestic industry is essential to national defense in time of war. The Committee demonstrated, however, that orders for war materials are frequently placed with foreign licensees where construction and labor costs are lower. From 1900 to 1926 Electric Boat Company built 391 submarines, of which 165 were built in the United States and 226 in foreign countries.<sup>88</sup> Royalties received from

84. *Ibid.*, Exhibit 493.

85. *Ibid.*, Exhibit 462.

86. *Ibid.*, Part I, p. 67.

87. *Ibid.*, Exhibit 35.

88. Submarines constructed by Electric Boat Company in the United States during this period include 115 for the United States government, 22 for Great Britain, 12 for Russia, 8 for Italy, 5 for Japan, 2 for Peru, and 1 for Spain. Submarines constructed in foreign yards under Electric Boat Company license: by Vickers, Ltd., 155; *Sociedad Espanola*, 24; de Schelde, Holland, 13; Nevsky Works, Russia, 6; Whitehead, Fiume, 19; Norwegian government, 6. *Ibid.*, Exhibit 171.

foreign licensees, 1916 to 1927 inclusive, amounted to \$3,869,637.<sup>89</sup>

In 1925 the Rumanian government sought to place an order for submarines with an Italian company. According to a letter from L. Y. Spear, vice president of the Electric Boat Company, "all the Italian yards, however, grouped themselves into a syndicate and offered exactly the same price, at which the Rumanian government took offense and consequently re-opened the business," which Electric Boat then tried to get.<sup>90</sup> As construction costs in American yards would have been too high, Electric Boat sought to have the work done through Cockerill, its licensee in Belgium. "On this business," Spear wrote, "we would have to pay an agent's commission of 2 per cent and a participation fee to Vickers of 3 per cent, so that the net price would be \$551,000 per boat. The estimated cost, including 100 per cent overhead for Cockerill, is \$450,000."<sup>91</sup>

Electric Boat Company charged that during the World War Germany used its designs in constructing the submarines which destroyed American and Allied shipping. The designs were apparently procured from the Whitehead plant in Fiume, licensed by Electric Boat and Vickers in 1912. At the end of the war Electric Boat sought to recover \$17,000,000 from the German government for alleged infringement of patents.<sup>92</sup>

Although Electric Boat Company is apparently regarded by the Navy as a national defense asset, relations between the Company and the Navy Department became strained for a period of several years after the World War, when the Navy sought to build all submarines in government yards. Writing to Zaharoff in 1928, the president of Electric Boat declared:

"I have reason to believe that the design of the Department at Washington of submarines has proven unsuccessful . . . I am very frank to say that the business done with our Government officials has never been of a satisfactory nature, quite different indeed from the result of our work here and abroad for other nations, but it is necessary for our prestige that we build boats for this Government, and therefore, we must manage to get along with the excessive supervision and interference."<sup>93</sup>

In the military sales agreement between du Pont and Imperial Chemical Industries signed in 1932, the two parties, desiring "to discourage as much as possible the erection

89. *Ibid.*, Exhibit 8.

90. *Ibid.*, Exhibit 145.

91. *Ibid.*

92. *Ibid.*, p. 16-17. A judgment handed down by the German-American Claims Commission awarded Electric Boat \$125,000.

93. *Ibid.*, Exhibit 87.

of factories" in South America and China, agreed that no factory scheme can be carried out by either without the consent of the other.<sup>94</sup> The Senate Committee introduced correspondence which seemed to show that in one instance the two companies sought to prevent Argentina from building a government powder factory.<sup>95</sup> According to letters placed in evidence, the du Pont agent in Buenos Aires claimed to have cancelled a contract for the construction of a factory by a German company (Kolin-Rottweiler) on three occasions. This agent's claim was contested by du Pont officials, although it was not denied that the German contract had been cancelled.<sup>95a</sup> Du Pont officials explained that the company was in business "to sell powder and not build plants" which would compete with its products.

Similar opposition was expressed by du Pont and Imperial Chemical Industries to a proposal for a military factory in Chile in 1927. The minutes of a meeting between representatives of du Pont and I.C.I. in London stated that "the recent proposal put forward by the Chilean company was discussed and whilst it was recognized that the scheme presented many difficulties, it was considered politic on the part of the Chile company to keep these negotiations open as long as possible."<sup>96</sup> It was suggested that du Pont had a secret understanding with the Atlas and Hercules Powder Companies in the United States to limit their exports to South America, particularly Colombia.<sup>97</sup>

In 1931 the Mitsui Company of Japan, which was associated with du Pont under certain chemical license agreements, sought to buy the rights for a new secret process developed by du Pont for the manufacture of a hydrogen-nitrogen mixture which may be used for production of munitions as well as for fertilizer.<sup>98</sup> The testimony showed that du Pont officials had presented the matter to the State Department and explained their reasons for wishing to close the deal, valued at approximately \$900,000. The evidence showed that this process would enable Japan to produce hydrogen more efficiently and more cheaply than under the established process. Du Pont further agreed not to reveal its secret "contact conversion process" to any firm other than Imperial Chemical Industries for a period of three years, and to inform Mitsui of any new improvements developed for a period of seven years. Du Pont officials

denied that the process would enable a country to increase its munitions production.

#### GOVERNMENT AID TO PROMOTE ARMS SALES

In the half dozen large arms producing states, the private munitions industry enjoys a special relation to government. Although armament firms operate for private profit and are generally free to pursue their business dealings with as little interference as possible, they are regarded by governments as an essential part of the national defense system. In this rôle they receive government aid and encouragement, on the principle that a strong domestic armament industry is vital to national defense. In examining this relationship the Committee revealed a number of paradoxes.

In the case of the United States the Committee showed that the War and Navy Departments and the Department of Commerce have assisted private armament firms in the promotion of foreign sales which might conceivably prove detrimental to the defense of the nation. It was shown that government agencies have not only "encouraged" private companies to secure foreign orders, but that the War and Navy Departments have served as "sales agents" abroad and have released recent designs on war material, developed at the expense of the American taxpayer, to foreign countries.

The policy of the War and Navy Departments with respect to release of designs on aircraft material to private American firms was set forth in a memorandum dated August 5, 1933, circulated by the Bureau of Aeronautics. The memorandum states that "the War and Navy Departments will encourage the American aeronautical industry in developing foreign business and assist in such development so far as consistent with national policy and the needs of the national defense . . ." Secret designs are presumably not released; other military designs may be sold abroad one year after going into regular production, while those which contain "no novel features" may be released at once. Requests for release of aeronautical equipment are passed upon by the chief of the Army Air Corps or the chief of the Navy Bureau of Aeronautics and reported to the Aeronautical Board.<sup>99</sup>

Testimony of aviation company officials revealed that this policy is liberally interpreted by the War and Navy Departments. Correspondence from the files of the Curtiss-Wright Company indicated that recent designs on aircraft are released if sufficiently

94. *Ibid.*, Part V, Exhibit 465.

95. *Ibid.*, p. 1173-93.

95a. *Ibid.*, p. 1179-82.

96. *Ibid.*, Exhibit 514.

97. *Ibid.*

98. *Ibid.*, Exhibits 490, 494.

99. *Ibid.*, Part IV, Exhibit 413.

large orders are received from abroad. In April 1934 Curtiss-Wright informed the Peruvian government that it would be able to furnish Peru with "the most modern fighting unit of its type ever developed—a type furnished only to the United States Army Air Corps . . . . Provided that we have a contract for at least ten planes we will be able to secure permission from the United States government to build for Peru."<sup>100</sup>

In several instances, according to the testimony, the War and Navy Departments allowed the aviation companies to sell planes or engines under construction for the United States government to foreign countries in order to make prompt delivery and keep their factories in operation.<sup>101</sup> On September 17, 1932 the Bureau of Aeronautics of the Navy Department approved a request from the United Aircraft Corporation to transfer to the Brazilian government twenty-nine airplanes then under construction for the United States Navy.<sup>102</sup>

Private companies have defended this practice on the ground that they are in a position to furnish the United States Army and Navy with military information concerning other countries. Curtiss-Wright officials testified that they would regard it as a "patriotic duty" to furnish such information to the government. In some instances, however, the companies have apparently withheld information relating to foreign contracts. On June 25, 1934 J. S. Allard of Curtiss-Wright Export Corporation wrote that "it is my opinion that our business does not permit of our furnishing copies of contracts and agreements with foreign governments . . . ."<sup>103</sup>

The evidence, taken as a whole, would seem to show that instead of acquiring information abroad which is useful to United States military forces, American aviation companies are supplying foreign governments with airplanes of substantially the type used by the United States Army and Navy. At times it would appear that some American companies may have supplied military secrets in order to secure foreign orders.<sup>104</sup>

In 1929 the War Department informed the Driggs Ordnance that it "would be willing to release to your company the designs of the latest anti-aircraft material, provided you had a contract with a foreign government for a production quantity of anti-aircraft material which you would agree to manufacture in the United States."<sup>105</sup> At this time the Driggs Company was negotiating for the sale of anti-aircraft guns to the Turkish gov-

ernment. The Company's agent in Turkey reported competition from Vickers and other European companies and solicited the aid of the United States Navy in his sales promotion campaign. On February 16, 1929 the Driggs Company requested the Navy Department in Washington to permit Turkish government officials to inspect the 3-inch anti-aircraft guns of Driggs design on the cruiser *Raleigh* in Constantinople. On February 18 Admiral William D. Leahy, Chief of the Bureau of Ordnance, replied as follows:

"Gentlemen: With further reference to my letter of February 16th regarding the inspection of 3-inch AA guns on board the 'Raleigh' by the Turkish Government, I am pleased to inform you that the Chief of Naval Operations has written to Commander Naval Forces Europe, as follows:

"The Navy Department has been requested by the Driggs Ordnance and Engineering Company, Inc., New York, N. Y., to grant permission for a Military Commission of the Turkish Government to inspect the 3-inch anti-aircraft guns of the 'Raleigh' during her visit at Constantinople from 27 March to 4 April, 1929. The Driggs Company is negotiating with the Turkish Government a contract for certain anti-aircraft guns and desires the inspection to be made in this connection.

"The inspection requested by the Driggs Company is satisfactory to the Bureau of Ordnance and is approved by the Navy Department."<sup>106</sup>

The inspection was held on the *Raleigh* in the harbor of Constantinople March 28, 1929.

In 1920, when the Electric Boat Company was promoting submarine sales in South America, the Washington representative of this concern reported that he had suggested to Admiral Niblack, Chief of Naval Intelligence, the possibility of "sending a fleet of submarines to South America to visit Rio, the Argentine, through the Straits and up the west coast."<sup>107</sup> According to the company official, Admiral Niblack gave directions "to agitate this subject and see if it cannot be consummated. He [Admiral Niblack] believes in it."<sup>108</sup>

#### Aid of Naval Missions

All of the great powers, according to the testimony of arms firms, have utilized military and naval missions to secure foreign orders for domestic industry. In 1920, at the request of the Peruvian government, the United States sent a naval mission to Peru to advise the government on a naval defense program. Two United States naval officers attached to the mission visited the Groton plant of the Electric Boat Company before they left for Peru "to practically take charge of the Peruvian Navy."<sup>109</sup> The mission, which remained in Peru for nearly ten years, drew

100. *Ibid.*

101. *Ibid.*, Exhibits 423-425.

102. *Ibid.*, Part VI, Exhibit 570.

103. *Ibid.*, Part IV, Exhibit 445.

104. *Ibid.*, Exhibits 448-449.

105. *Ibid.*, Part II, Exhibit 232.

106. *Ibid.*, Exhibit 228.

107. *Ibid.*, Part I, Exhibit 56.

108. *Ibid.*

109. *Ibid.*, Exhibit 59.

up an elaborate naval program providing for purchase of warships and submarines in the United States. The agent of Electric Boat Company asserted that Admiral Woodward, head of the mission in 1924, had been of "great help altogether" in securing contracts.<sup>110</sup> The mission allowed the company to name an American officer to pass on submarine specifications.

A few years later when Peru and Colombia were engaged in the Leticia controversy the United States Navy "loaned" a naval officer, Lieutenant Commander James H. Strong, to the Colombian government to advise on plans for defense against Peru. The evidence showed that Commander Strong drew up plans for the defense of the Atlantic and Pacific ports of Colombia, taking into account a possible naval attack by Peru with submarines which had been recommended by the earlier American naval mission in Peru. Testimony revealed further that Commander Strong had prepared his plans in collaboration with the Driggs Ordnance and Engineering Company, whose ordnance material was strongly recommended to Colombia in the report.<sup>111</sup> At the same time the State Department, in cooperation with the League of Nations, was using its good offices to bring about a pacific settlement of the Leticia controversy.

Other agencies of the government, according to the evidence, have given valuable assistance to private armament firms in the promotion of foreign sales. It was shown that the Department of Commerce and its commercial attachés have promoted the sale of American war materials in Europe, Latin America and the Far East. In 1931 the Bureau of Aeronautics of the Department of Commerce cooperated with private American firms in the selection of military pilots to organize a training school for the Nanking government in China.<sup>112</sup>

Under the direction of Colonel John Jouett and a corps of experienced military pilots, this aviation school has been turning out Chinese flyers who have been used by the Nanking government as the backbone of its anti-Communist drive. In 1933 a similar mission was sent to Canton to organize and operate an aviation training school for the Canton régime.<sup>113</sup> The evidence showed that the Department of Commerce cooperated closely with the Curtiss-Wright and United Aircraft groups in the appointment of military instructors familiar with the aircraft equipment of these American firms.<sup>114</sup> In January 1933 officials of the United Aircraft Company wrote that "while it is be-

lieved that all of these men are entirely familiar with Boeing Corsair equipment, it might be advisable for the Boeing organization in Seattle to take them through the plant before they sail."<sup>115</sup>

It was shown that American armament firms have frequently sought the assistance of the State Department in the promotion of foreign sales. On November 3, 1925 Sir Basil Zaharoff advised Electric Boat of German competition in the sale of submarines to Spain. To offset this competition Sir Basil wrote:

" . . . the American Ambassador in Spain is a very clever gentleman and I think you should arrange for instructions to be sent him from your State Department, for him to tell the Spaniards that the United States government worked very harmoniously with Electric Boat Company . . . The English government will be difficult to move in the same direction but when you inform me that your government has given the necessary instruction to their Ambassador in Madrid, I will have no difficulty in persuading the British to do ditto, ditto, ditto."<sup>116</sup>

The record does not show what action the State Department took in this matter, although officials of Electric Boat Company testified that they had probably approached the Department.<sup>117</sup> L. Y. Spear, vice president of the Company, explained that whenever they encountered foreign competition "they endeavored to get the American government to do its part." These efforts were apparently successful in some cases. On December 22, 1922 the American Ambassador to Brazil, Edwin Morgan, informed Mr. Chapin of Electric Boat Company that "for the last three months or more I have been in conference with Commander Aubry and took steps with the late President to check the signature of a contract for boats of Italian manufacture. Before Commander Aubry returned to Montevideo, at the beginning of November, it was evident that no order would be placed at once."<sup>118</sup>

In 1933 Electric Boat Company requested the State Department to intercede on behalf of an Italian company, a licensee of Electric Boat, in competition with other Italian companies for a contract from the Italian government. The State Department replied that the American Ambassador to Italy had been "authorized to lend your representative such appropriate assistance as he may consider warranted under the circumstances."<sup>119</sup>

Evidence that the State Department no longer approves such diplomatic representation on behalf of armament firms was contained in a memorandum signed by Mr. William Phillips, Under Secretary of State, to the Ambassador to Peru, dated June 30,

110. *Ibid.*, Exhibit 67; cf. also p. 114.

111. *Ibid.*, Part II.

112. *Ibid.*, Part VI, Exhibit 551.

113. *Ibid.*

114. *Ibid.*, Exhibit 552.

115. *Ibid.*

116. *Ibid.*, Part I, Exhibit 32.

117. *Ibid.*, p. 62.

118. *Ibid.*, p. 170.

119. *Ibid.*, Exhibits 129-140.

1933: "Joyner [Electric Boat Company] requested that we give instructions to support the company's efforts to obtain contract for construction of new gunboat. He was informed that the Department could not appropriately take such action."<sup>120</sup>

As a result of the close relationship shown to exist between governments and the private munitions industry, it would appear that in some cases armament firms have come to be regarded as semi-official agencies of the state. It was implied, though not definitely affirmed, that the du Pont Company may sometimes serve as an agency of the War and Navy Departments. Because of du Pont's wide international connections and its technical knowledge of chemical developments throughout the world, this Company is in a position to serve as informant to the military and naval intelligence services. In another connection it appeared that the du Pont Company was used by the United States government as an instrument to enforce its recognition policy.<sup>120a</sup> The implication was clear that this Company, and possibly other great armament firms, by virtue of their ability to sell or withhold munitions, may be the decisive factor in maintaining or overthrowing a foreign government.

In order to protect "secret data" relating to War Department procurement plans in the files of the du Pont Company, General Douglas MacArthur, in a letter dated August 8, 1934, called the attention of the Company to "the necessity of safeguarding these secret data from being made public by the Senate Committee." In this case it was shown that the Company, proceeding on its own authority, ordered all correspondence which it did not wish to be made public stamped confidential in the name of the War or Navy Department. This stamp, placed on a number of letters not relating to the United States government, read:<sup>121</sup>

"Upon instructions of the War and/or Navy Department this document is entrusted to Mr. —, for use by United States government agents only.  
E. I. DU PONT DE NEMOURS CO.  
by K. K. V. Casey."

Members of the Committee pointed out that neither the Company nor the War Department had authority to disregard the process of the United States Senate.

In other instances it was suggested that the influence of armament firms may even be sufficient to affect the balance of power in certain parts of the world. The Soley Armament Company, Ltd., of England, dealers in second-hand war materials, informed American Armament Corporation in February 1934 that they were in a position to "alter

the political balance of power" of the smaller states in different parts of the world. This Company asserted:

"... We are really the sole selling channel for small arms, etc., which belong to the British War Office. . .

"The stocks which we control are of such magnitude that the sale of a big block of them could alter the political balance of power of the smaller states, involving corresponding complications from the point of view of finance and industry.

"For your information, in confidence, the value of the stocks here under our control is approximately six million pounds [30 million dollars] so there is no great risk that they will all be disposed of in a short time . . ."<sup>122</sup>

The Company reported that its stocks included 800,000 rifles with spares, 73,000 machine guns and spares (Hotchkiss, Lewis and Vickers types), 120 million rounds of rifle and machine gun ammunition, as well as other small arms.

In March 1934 Mr. John Ball of the Soley Company suggested to American Armament Corporation that the latter approach the United States government with a view to disposing of these big stocks in China in order to combat Japan's policy in Asia. Mr. Ball stated:

"As you are no doubt aware, China consumes a vast quantity of small arms per year, and they have bought large quantities of rifles from us, mainly Mausers (over 100,000 in 1931/32), but have slacked off lately owing to the loss of Manchuria, and the shortage of ready money in the south—i.e., Canton and Nanking. In spite of all the dreams of the idealists, who imagine that *homo sapiens* is filled with honor, justice, love, and self-sacrifice, Japan is going to take a still larger slice of China, and comparatively shortly, while the getting is good. To place herself in a favorable position, Japan must either buy over the Soviet or fight them—and Japan will do one or the other, before attending to some more of China.

"Such a move on Japan's part would seriously affect the U. S. interests in China, and we think that the U. S. would under the above circumstances support the Chinese, supply them with arms, etc.

"In such an eventuality, something might be done with the big stocks of rifles here, also M.G.s and we think it might be very advisable for you to approach the U. S. Dept. for Foreign Affairs and the War Dept., and hand them a list of what stocks there are over here, informing the Depts. at the same time that you are the sole representative for the U. S. A.

"This is only our suggestion to you, and you may possibly have other ideas of your own as to how such a matter should be handled, for instance, it might be better to bring the stocks to the notice only of some of the 'big business' gentlemen, and leave any possible wangles to them, for they even might see quicker possibilities in such a stock."<sup>123</sup>

There was no evidence that this suggestion was followed up or that the American government was informed of the stocks of available material in England. It would appear, however, that the influence of private corporations dealing in war materials might be

120. *Ibid.*, p. 152.

120a. *Ibid.*, Part V, p. 1149.

121. *Ibid.*, Part V, p. 1075.

122. *Ibid.*, Part III, Exhibit 256.

123. *Ibid.*, Exhibit 260.

used on occasion to affect political relations in various parts of the world.

#### EXISTING EXPORT REGULATIONS INADEQUATE

During the first stage of its investigation the Committee examined only briefly two important questions raised by the Senate Resolution:

1. The adequacy or inadequacy of existing legislation for the control of manufacture and trade in arms, and
2. The desirability of creating a government monopoly with respect to the manufacture of arms and ammunition.

Before adjourning on September 21 the Committee heard a representative of the Department of Commerce, in charge of foreign trade statistics, and the Deputy Collector of Customs of New York. It was shown that the Federal government has no adequate check on the export of arms and ammunition, that existing export regulations are based on laws passed in 1799 and 1820, and that there is no penalty for falsification of export declarations or false labelling of shipments.

Statistics on the export trade in arms published by the Department of Commerce are compiled from Customs House records. These records are based on information submitted by the exporter on forms provided by the Customs House to the Collector of Customs. Each shipment is recorded, in the case of exports, on a declaration form sworn to and presented to the Collector of Customs. These in turn are transmitted to the Division of Foreign Trade Statistics of the Department of Commerce.<sup>124</sup>

Information gathered by the Senate Committee indicated that figures compiled by the Department of Commerce do not always correspond with records found in the files of armament companies. Sales of airplanes to South America during 1932 and 1933, as shown by Curtiss-Wright and United Aircraft figures, apparently exceeded the number reported by the Department of Commerce.

The Deputy Collector of Customs in New York testified that his office was unable to check the accuracy of labels on export declarations. Shipments of munitions labelled "machinery" would be passed for export without examination. This customs official described existing regulations as "archaic."<sup>125</sup> The Committee showed that there is nothing to hinder an American manufacturer of airplane engines, for example, from labeling his engines as automobile parts and billing them to one country, then ordering the ship at sea to make delivery to another country.

Evidence that munitions shipments may have been exported under misleading labels

was found in the correspondence of several American companies. In April 1933 Lake Erie Chemical Company reported that it had given the Barr Shipping Corporation of New Jersey "instructions to take off any labels that show signs of war materials on the shipments to Honduras."<sup>126</sup> The shipping company was ordered to describe a consignment of tear gas as "various merchandise."

It is apparently a common practice for armament manufacturers to have shipments of arms and ammunition handled through commercial export houses, thus concealing the identity of the actual shipper. In some cases, apparently, arms companies have chartered tramp steamers to deliver shipments of war materials to South American countries.<sup>127</sup>

In the absence of new legislation it would appear that the Federal government is unable to control the export of arms or to enforce the provisions of arms embargo measures. At the present time there are no Federal regulations governing the manufacture of arms or ammunition.

In several foreign countries the importation and exportation of war materials is regulated by the government. The British government, for example, licenses all firms engaged in the trade in arms and ammunition and passes on all foreign shipments. Letters from the Soley Armament Company, Ltd., would indicate that these regulations may be circumvented by some firms. Writing to American Armament Corporation, John Ball, president of the Soley Company, declared:

"We have, of course, heard from several sources that Bolivia wants A.A. guns quickly, but we do not think for a moment that a shipment or sale to Bolivia could be made direct, while that country is at war. If, however, an American armament firm of some standing bought the guns, for eventual resale, things might be easier—or if the Colombian Govt., who are not at war, bought the guns, they could no doubt have them. We are investigating the question with the war office here regarding a direct supply to Bolivia through yourselves, and will inform you of the results as soon as we can, but in principle we are not so hopeful of permission being given. In any case, we do not think there are many other A.A. guns apart from ours to be got from stock and quickly, so your chance of selling new guns with a few months delay may be increased if we cannot supply, or if we refuse to supply should we be allowed to do so. We shall promptly advise you of any new developments on this subject."<sup>128</sup>

#### MUNITIONS PROFITS

That the manufacture of munitions is profitable in time of war, if not in peace time, was shown by records of the du Pont Company during the period of the World War. The total war-time profits of the Company amounted to \$265,871,625.93. Earnings increased from \$4,997,000 in 1914 to \$86,000,-

124. *Ibid.*, Part VIII.

125. *Ibid.*

126. *Ibid.*, Exhibit 795.

127. *Ibid.*, Exhibit 782.

128. *Ibid.*, Part III, Exhibit 260.

000 in 1915. The following table shows published earnings for the war years:<sup>129</sup>

1914 .....	\$4,997,772.55
1915 .....	86,409,424.53
1916 .....	82,107,692.55
1917 .....	49,258,661.58
1918 .....	43,098,074.72

Assisted by these war profits, the du Pont Company expanded its industrial holdings after the World War. Beginning in 1919 the Company invested 50 million dollars in the chemical and dye industry, acquiring a controlling interest in some thirty domestic and foreign corporations. The du Pont Company also acquired a block of 10 million shares of General Motors stock for an original investment of 47 million dollars, or approximately \$4.70 a share. As a result of this transaction the du Pont Company controls 23.45 per cent of the voting stock in General Motors Corporation and exercises an important voice in the direction of General Motors policy. In 1933 the E. I. du Pont de Nemours Company had fourteen wholly owned subsidiary companies, 18 partially owned subsidiaries, and direct investments in other companies.<sup>130</sup> Assets of the du Pont Company increased from \$74,000,000 in 1913 to \$308,000,000 in 1918 and \$351,000,000 in 1927. Assets of the Company from 1913 to 1927 were as follows:<sup>131</sup>

1913 .....	\$74,000,000
1914 .....	83,000,000
1915 .....	258,000,000
1916 .....	217,000,000
1917 .....	263,000,000
1918 .....	308,000,000
1919 .....	240,000,000
1920 .....	253,000,000
1921 .....	252,000,000
1922 .....	259,000,000
1923 .....	279,000,000

## CONCLUSION

The conclusions to be drawn from the first stage of the Senate investigation are necessarily tentative. The Committee is continuing its investigation and will presumably probe other aspects of the munitions problem not covered in its initial hearings. But the evidence already presented demonstrates beyond a doubt that private manufacture and sale of instruments of war is open to grave objections. It exposes a long list of abuses, ranging from unscrupulous methods in the promotion of foreign munitions sales to stimulating arms competition and obstructing peace efforts. It implies that private interests may be so powerful as to compromise or control government policies. The inability of the great powers to prevent their nationals from supplying arms to Germany despite the provisions of the Versailles Treaty, the failure of peace efforts in the

1924 .....	275,000,000
1925 .....	305,000,000
1926 .....	322,000,000
1927 .....	351,000,000

The war time earnings of the Electric Boat Company and Driggs Ordnance and Engineering Company were not published by the Committee. Most of the other smaller companies examined were organized after the World War. The Pratt & Whitney Company, a subsidiary of United Aircraft, was organized in July 1925 for the purpose of manufacturing an air cooled engine suitable for military and commercial use. It was shown that the president and the engineering staff of the new company had been employees of the Wright Aeronautical Company immediately preceding the formation of Pratt & Whitney, and had aided the Wright Company in developing an air cooled engine. By January 1926 the Company had developed a successful engine, and during its first year 100 per cent of the Pratt & Whitney business was done with the United States Navy. During this period, it was shown, Commander E. E. Wilson was in charge of the engine section of the Bureau of Aeronautics, United States Navy Department. On January 18, 1930 Commander Wilson resigned from the Navy and immediately became president of one of the manufacturing subsidiaries of the United Aircraft Corporation.

The original capital investment of the Pratt & Whitney Aircraft Company was \$1,000. For this investment, 5,000 shares of no par stock were issued at 20 cents a share. The returns through the year 1932 on the original \$1,000 were at least \$11,437.250—or 1,143.725 per cent.<sup>132</sup>

Gran Chaco, and the ineffectiveness of arms embargoes would suggest that these interests have in fact defied the purposes of their governments. Finally, the evidence shows that the governments of the large arms producing states have aided and encouraged these private interests in order to assure adequate national defense in time of war.

In exposing these conditions the Senate Committee has revealed a paradox arising from the dual character of the munitions industry. Munitions firms are private corporations responsible to shareholders, whose chief concern is the prompt payment of dividends. Dividends can be paid only out of profits, and profits depend on the sale of war materials in the world market regardless of political or social consequences. At the same time munitions firms receive government aid in time of peace in recognition of the part they are expected to play in the mobilization

129. *Ibid.*, Part V, Exhibit 454.

130. *Ibid.*, Exhibits 450-456.

131. *Ibid.*, Exhibit 455.

132. *Ibid.*, Part VI

of industry for war. Yet governments, when they encourage the development of the domestic munitions industry, are not only involved in the abuses of the industry but are forced to effect compromises with their own policies. For the evidence brought out by the Senate Committee would seem to show that the pursuit of profits by munitions firms leads inevitably to such practices as bribery, sale of patents and secret processes to foreign companies and the arming of potential enemy states—practices which directly conflict with the interests and policies of their own countries.

The Senate investigation has evoked a strong public demand for control of the manufacture and trade in arms. Three proposals have attracted special attention:

1. Total abolition of private manufacture, or creation of a government monopoly.
2. Elimination of profits in time of war.
3. International regulation of manufacture and trade.

Proposals for complete abolition of private manufacture have come from many quarters and have been considered tentatively by members of the Senate Committee. These proposals indorse the views expressed by those governments which advocated total suppression of private manufacture during the early stages of the Disarmament Conference at Geneva.<sup>133</sup> It is argued that the abuses shown by the investigation cannot be ended as long as private interests are free to profit from the sale of arms. The government, it is contended, should take over the manufacture of all ordnance, ammunition, warships, military airplanes and airplane engines. In time of war private manufacture might be permitted under government supervision, with drastic laws imposing a tax from 95 to 98 per cent on all incomes over \$10,000.

Objections to these proposals have come from national defense advocates, leaders of the munitions industry and others who argue that suppression of private manufacture would "cripple our national defense."<sup>134</sup> The War and Navy Departments support this view. Under the National Defense Act of 1920, the War Department contemplates the immediate mobilization of the man-power and the industrial resources of the nation in time of war. Its munitions requirements are based on the needs of an army of three to four million men. During the World War, with an army of approximately the same size, the government purchasing list con-

tained no less than 700,000 separate items.<sup>135</sup> These enormous requirements, according to the War and Navy Departments, can only be met by private industry.

When the Senate Committee weighs these conflicting views it will be compelled to examine the military and naval policies of the government as well as the activities of the munitions industry. In the case of the United States it might be expected to determine whether the National Defense Act is based on the defense of American territory or, as appears more likely, is designed to prepare the country for another overseas war waged on the same scale as the World War. If preparation for unlimited war is the objective, nationalization of the munitions industry would be difficult. If national policy is concerned with defense of American territory, the needs of a small mobile force might conceivably be met from government-owned plants.

The third proposal—international regulation of manufacture and trade—has received strong support in the United States. For a number of years a small but informed section of public opinion has followed the efforts of the League of Nations to secure international action to control the traffic in arms. The belated ratification of the 1925 Convention by the Senate in May 1934 was an indication of the growing sentiment for international regulation. The initiative taken by the United States on November 20, 1934, when it submitted to the Disarmament Conference at Geneva a draft treaty providing for control of manufacture of and trade in arms has been welcomed as a constructive step toward effective control. The disclosures of the Senate Committee and the demand for strict legislation in this country make it certain that a treaty providing international controls will command support in the Senate. Licensing of all munitions plants, publicity for orders and production of all arms and ammunition, government licenses for imports and exports, and supervision by a permanent international body are regarded as the minimum requirements for establishing international control. It is pointed out, however, that while these measures would eliminate many existing abuses and would possibly lessen the danger of war in some parts of the world, they would not necessarily affect the military policies of the great industrial nations or remove the fundamental causes of war. The testimony before the Senate Committee seems to demonstrate that the problem of controlling the munitions industry cannot be divorced from the larger problem of controlling the forces which make for war.

<sup>133.</sup> League of Nations, Conference for the Reduction and Limitation of Armaments, Conf. Doc. 180, p. 6. Several governments, including France, Poland, Denmark and Spain, supported this proposal.

<sup>134.</sup> Cf. statement of Lammot du Pont, *New York Times*, November 19, 1934.

<sup>135.</sup> Cf. War Policies Commission, Report, Vol. II, p. 363. House Doc. 163 (Washington, U. S. Government Printing Office, 1931).